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- ~ Y2K Bugs Checked Again ~ Y2K Hard Drive Warning ~ US Cities Cautious
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Happy New Year to all of our faithful readers, old and new!! The year 2000 is upon us. Who would have ever imagined that a year - a simple date - would cause this much commotion. Look at the time, man-power, and money that this "Y2K bug" has caused - all over the world! So, are you prepared? From all that I have read, an Atari computer is oblivious to this bug. That's a good thing! The two PC machines in my home are probably not 100% Y2K-compliant as yet. At this very moment, I have both machines downloading the latest "fixes" for Windows95, our anti-virus software, and some system-checking software. I figure that both machines will be tied-up for hours! It's got to be done, unfortunately. And who knows whether or not the "regular" software on both of these machines are okay or not. I guess we'll find out soon enough!

Later on in this issue we'll have some Y2K articles. What to check, where to go to check, and whatever. Since this issue comes out on New Year's Eve, I hope that you won't "need" this information any longer. But, if you've waited until the last minute to do anything, or you're double-checking your system, some info is here. Good luck!

So, how was your X-mas holiday? It was fun here. We visited with friends and family - only a couple of stops. It was enjoyable. Got lots of "stuff" for presents. Nothing Atari-related this year! Got tons of games for the PC and a few for the PlayStation. No Jaguar games under the tree! Some various PC software, as well. The most interesting software was a Home Design package which will [hopefully] allow us to redecorate and fix up the house visually - and then do the real thing. It's really quite elaborate and I can't wait to really dig into this program! Other than the fun stuff, we got the usual clothes, music CDs, house stuff, etc. Even the dogs (or the 4-legged kids!) got some stuff under the tree. So, all in all it was a terrific holiday. Hope yours was just as good!

Well, this is the last issue for 1999. I'm still amazed that we managed to get this far! The interest is really appreciated! Every week we get some more subscribers; and at least one web site with the current issue gets and average of 100-plus hits a week. We hope that 2000 allows us to continue to grow and improve. Thanks for being there with us!

Remember, party responsibly! If you're drinking, do not drive! Please use a designated driver!

Until next time, the year 2000...

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Gemulator Now FREE

From: Fred Horvat

Derek is giving away Gemulator now and only charging for his MAC products. Well unfortunately after he got rich off of me. Go to http://www.emulators.com and go to the download section.

I tried Gemulator 2000 out and it is the real full featured version. With this version you can use your regular Windows drives or drive containers. I'm using both with the drive containers running MINT since MINT uses a UNIX type file system. Once configured the way you want it runs pretty good. Best thing is you no longer need a Gemulator card for TOS chips. Just copy your TOS image to a file or use MagiC and go from there. If you have a need or interest in an Atari Emulator to run TOS this is the best TOS emulator out there and I've used most of them except Janis. Plus for free you can't beat it.

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PEOPLE ARE TALKING compiled by Joe Mirando jmirando@portone.com

Hidi ho friends and neighbors. You're probably reading this sometime after New Year's Eve, so let me start off by saying that I hope that your celebration was a good one... but not too good. It's been my experience that excessive New Year's celebrations bring unwanted consequences the following day. No doubt, some of you know exactly what I mean.

For myself, I plan on a quiet evening with a few friends, a home-made pizza (made by me, of course) a \_bit\_ of alcoholic libation... and an internet connection to see if anyone reports major Y2K problems.

Not exactly "Gonna party like it's 1999", but I doubt that 1999 will be any different than previous years.

On another note, the New Year brings an end to an era. Delphi will be discontinuing dial-in access. From now on, users will need to access Delphi via the internet. This has been a trying time for Atari users who have relied on Delphi's dial-in setup for downloads, forum messages, and chats. Anyone who wishes to use their Atari to access Delphi now needs to use one of the few internet dialer setups available. For most people, this means STinG, because it works on any ST computer from the 520 STF to the Milan. As a nice added feature, it's also FREE!

I've helped a couple of people set up STinG on their systems, and it's really not that hard. The biggest problem has always been understanding what the different STinG modules actually do. Once you've got even a minimal understanding, setup and configuration are actually very easy. While I'm saddened by the fact that Delphi is now less accessible than I used to be, I'm happy that there is a fairly simple way to continue accessing it.

 $I^{\prime}m$  going to keep it brief and say simply that I hope that the new year finds you unscathed, and leaves you prosperous.

Now let's get to the news, hints, tips, and info to be found on the UseNet.

From the comp.sys.atari.st NewsGroup

Speaking of STinG, Tony Cianfaglione posts:

"According to Ronald, STinG 1.20 up use modules differently for more efficiency. Future modules will be designed to work with the new modules and may not work correctly with STinG 1.15 and earlier. By sticking with 1.15, although it works well, you may not be able to take advantage of future improvements. I believe 1.20 up are faster as well and more efficiently coded."

Joe Villarreal adds:

"Sting 1.20 along with the recent updates including Serial.CPX 1.22 makes accessing the internet faster. It's quite a bit faster on my TT with a U.S. Robotics  $v.90 \, \text{modem.}$ "

Bill Robinson re-states the problem he's having with STinG:

"The problem (I think) lies in the DIAL.SCR where the flag is set for the dialer to fetch the IP address. The Free-online ISP is server assigned, as I understand?? If this is so, in the DIAL.SCR the Client\_IP is disabled and \$Get IP is enabled, this then fetches the IP address. I am not used to this jargon but this is how I interpret what I have read from all the TXT's I can find. I know from the STING.HYP file that there"s a fault with the "Your IP address is" statement in the DIAL.SCR. There is an amendment.

But when retyping the correction the Modem still shuts down the attempt to connect.

I may be better off asking if someone has a working DIAL.SCR using the \$Get-IP flag and copying there workings.

Hope I have been clear as I said earlier I am from far being no wizard at any of this but I think I am very close to connecting to Free-online, I would like to follow it through."

While we're on the subject of internet stuff, Brian Van Tilborg asks about CAB:

"If CABs hard disk Cache is set at say the default 10meg, what happens when this figure is exceeded? I am curious to know without physically trying to find out."

Lonny Pursell tells Brian:

"I can tell you here that when CAB reaches the set limit and starts to purge data from the cache on it's own, it usually results in a freeze up."

Jorgen Nyberg adds his experiences:

"Just to let you know that on my Milan I have never cleared CAB's cache for the 12 months I've used it. When the cache gets full I just hear a little spinning from the HD for a couple of seconds and thats it.

No problemo. Come to think of it, it worked on my old STE as well."

## Terry May adds:

"I never had a problem with CAB's cache management, either, on my Falcon. At least the disk cache. I didn't have much luck with its memory cache, but (as far as I know) that had more to do with how it was designed, rather than a bug."

Charles Silver asks about documentation for a freeware hard drive program:

"Anyone know if there is any English docs for the freeware prg, CBHD502? The docs are in German hyp file. There is a warning in there about using the SCSI stuff on a Falcon, but not sure what's up. I WAS able to format/partition a SyJet 1.5gig cart I had buggered up "real good" using AHDI.

So, everything is working, but I don't seem to be able to set the scsi driver so that the SyJet is recognized at bootup. I have to run cbhd.prg to get it recognized. Problem is, it reassigns extra drive letters to my internal IDE drive, so shortly it uses up all the available drives.

If I use AHDI as the scsi driver on bootup, it doesn't see the Syjet at all. Now you know why I need to read the docs <grin>. BTW, this utility runs under MultiTOS(AES 4.1)/MiNT 1.15.0 on my Nemesis/Falcon. Is that a miracle?"

Peter (West, I think) tells Charles:

"There should be a translation I made some time ago on the author's web page, or available from him at Steffen.Engel@t-online.de. There has been an english HYP for some time for CBHD itself. (I have recently updated some of the docs for SCSIDRV as well and these should be there too, but these are only of interest to programmers).

>The docs are in German hyp file. There is a warning in there about using >the SCSI stuff on a Falcon, but not sure what's up. I WAS able to format/ >partition a SyJet 1.5gig cart I had buggered up "real good" using AHDI.

#### >>From the HYP:

The various Falcon problems can, unfortunately, give rise to very strange effects. If you have problems with your Falcon, first make sure that it is properly set up before asking for solutions to your problems.

# WARNING

Some Falcon030s have problems with the SCSI-port. This can lead to errors when accessing SCSI devices that result in loss of data.

In particular, fast hard disk drivers in association with fast hard disks will occasionally exceed the limits of the Falcon SCSI-port.

Usually such errors can be corrected by a hardware modification to the Falcon. Here are the instructions for this patch, with the compliments of Michael (Chip) Ruge:

MODIFICATION GUIDE for the CPU clock/timing signal

There are problems with the sound system of some Falcons. These show themselves either as clicks and scratches, or during the recording of

long sound files on the hard disk (SCSI errors).

If screen pixels begin to shimmer after a memory expansion has been added, this has NOTHING to do with the 16MHz clock signal or this modification. The twinkling pixels on the screen arise from the fact that the RAM chips cannot keep up with the computer timing!

For the Falcon-Wings from Heyer and Neumann in Aachen, the manufacturers themselves recommend using ONLY SIMM-modules produced by HUNDAI or MOTOROLA."

Charles replies to Peter:

"I found Engel's web page on t-online, but as you mentioned, he only had the English docs you translated for SCSIDRV, not for CBHD itself.

I was able to format/partition the SyJet cart using CBHD, just not set the cbhd.sys properly. I'm using AHDI as a driver at the moment. The reason it didn't work before was I forgot I had set the SCSI ID to 4, not 0. I was switching between the laptop and the Falcon to try and fix the bad cart. I have 2 SyJets now; one for the Nemesis/Falcon and the other for my laptop (running MagiCMac). My Falcon doesn't have the SCSI problem mentioned in the docs.

What I'm seeing is that CBHD initializes the SCSI first, then the internal IDE. That gets my drives (C.D.E.F...) out of order. I'm not sure if CBHD will auto boot from the IDE first. Also, it would be interesting if I could get the laptop with MM, to recognize the CBHD formatted cart. From the docs and MM, I assume that is possible. MM v6 says something about only recognizing 2 (AHDI) partitions on external SCSI drives. Others may may be interested in that. Anyway, thanks very much for your post."

Martin "Nightowl" Byttebier asks for help with an internet protocol:

"A few days ago I tried to download something from 'http://as.themes.org/' I ended up with a file called download.phtml. Can someone tell how I can handle this? When viewed with a hex-editor I see it must be a tar file but I can't untar it. BTW: I've download this file with Cab 2.8."

Neil Roughley tells Martin:

"PHTML means the page uses a server-side scripting language called PHP. By the sounds of it, CAB got confused with whatever the PHP-enabled server sent back to the browser (and subsequently to you)."

Frank Gregory asks:

"Can an ST emulate an 8bit Atari with any reliability? I have a 1040 ST and a bunch of 8 bit computers and limited room. I would love to have the ST be able to run the 8bit stuff. Any suggestions?"

Brian Van Tilborg tells Frank:

"http://www.umich.edu/~archive/atari

Go to the Emulators directory and you will find stx255.1zh as well as a few support files for the emulator. The emulator is called the xformer I think and was made by Darek Mihocka. I don't have an 8bit and haven't tried it. Also this may not be the latest version. It may be located on the Gemulator WebPage. I don't have the URL for this.

Regardless, checking out the umich atari archives is always fun, especially if you have an ST."

John Kolak adds:

"This free emulator has been out for a long time.

Look at:

www.emulators.com

Should be there somewhere. Don't confuse it with the emulator to run on PC computers."

Well folks, that's it for this week. Again, I hope that your New Year's celebration was happy, healthy, and above all, SAFE.

Tune in again next week, same time, same station, and be ready to listen to what they are saying when...

PEOPLE ARE TALKING

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- ->In This Week's Gaming Section Industry News Between Christmas and New Year's Eve?

  Christmas Goodwill!
- ->From the Editor's Controller Playin' it like it is!

Experience has told me that the week between Christmas and New Year's Eve is the deadest week of gaming news. Everyone is wiped out from the holidays' and most companies are on vacation this week. And anyway, all of you are probably too busy playing all of your new X-mas games to really care (or hung over!). I know that I've managed to get in a lot of game-playing time in this week while on vacation! Yes, I know, I'm supposed to be doing some clean-up and some work in the house this week (I have!). What's been keeping me busy? Let's see. How about '3D Ultra Pinball: The Lost Continent', 'Space Invaders', 'You Don't Know Jack!' (hilarious!), 'Tomb Raider II (gotta check out all of the fuss over Lara Croft!), and many others.

Anyone do any online shopping? I did, but I waited for my game purchases online until after the holiday. I bought some pet stuff for the dogs, upgraded my tax software, and a few other things. Really smooth - I was impressed. But for gaming, I got nostalgic! I started to think of all of the great games I used to play (and occasionally go back to playing) on my Atari computers. The company that first came to mind was Sierra. I loved

the Leisure Suit Larry and Space Quest games! I was so disappointed when Sierra announced that they were no longer supporting the Atari platform. I had a lot of their games. Well, when I realized that the 3D Ultra Pinball was from Sierra and had the Sierra web site listed within the program start-up sequence, I decided to visit the site to see what they had available with regard to ol' Larry Laffer and Roger Wilco. Wow, was I surprised! There are about 6-7 Leisure Suit Larry games available and 7 Space Quest! I ordered them all (for the PC) - and they were cheap. I probably paid the same for these games as it cost me for one or two Space Quest games 10 years ago! I can't wait until they get here so I can get re-acquainted with these two hilarious game characters and enjoy these games. I'm dying to see how they've improved these games over the years! Nostalgia is fun!

Like I said earlier, I also got some games for the PlayStation. Again, we got some games that were early classics - even Atari-related. We got 'Centipede', an Atari/Activision classic pack (Asteroids, Tempest, etc.), and a few other games that have been driving my wife crazy. She won't let me near that console, so I brought the Jaguar out from the closet. But, I'm still looking for the JagCD so I haven't hooked it up yet. The PC games have been keeping me busy anyway.

So, I hope that you got all or most of the games you were waiting for this holiday. We're all kids at heart and need the diversion! I'm hoping that 2000 provides us with even newer games and technology to run them. It should be an interesting year!

Until next time...

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->A-ONE's Game Console Industry News - The Latest Gaming News!

Internet Entertainment Company UGO Networks to Donate Thousands of Dollars of Videogames and Electronics to Children in Venezuela for the Holidays

In the effort to utilize entertainment to ease the psychological and emotional effects of the Venezuela flooding disaster on orphaned children, the New York-based Internet entertainment company UGO (UnderGroundOnline) Networks, Inc. teamed-up today with Santa Claus and the Venezuelan government to donate thousands of dollars worth of videogames and electronics-including the much desired Nintendo Game Boy Color.

Santa Claus, and representatives of UGO and the Venezuelan government, met at the Venezuelan Consulate in New York to pack up cartons filled with the videogames and electronics-\$50,000 worth-for the holiday shipment. The cartons will be delivered to children at Hospitales de Clinicas Caracas in Venezuela, in time for El Dia de Los Reyes-Venezuelan Christmas-on Jan 6th. During the program, Venezuelan Consul General to the United States, Pedro Conde-Regardiz, thanked UGO Networks for its generosity and kindness.

''Complimenting overwhelming relief efforts, UGO is taking the unique perspective of embracing the less obvious psychological and emotional needs of the children of Venezuela,'' said Mr. Conde-Regardiz. ''The Venezuelan

Consulate welcomes continuing support in all areas of aid, from medical supplies and food to entertainment and social programs.''

The donation will help combat the psychological and emotional effects that the flood would have on the children, by providing entertaining gifts during the holidays. According to Dr. Alexis Bello, President/Chairman of Hospitales de Clinicas Caracas, ''After having lost everything, we need to provide a way to help the kids get through the day. By using the medium of entertainment to help divert their attentions, we can provide a means of escapism for the children and get their minds off of their problems for at least awhile, which is why are working in conjunction with, and are so grateful to UGO Networks. The entertainment UGO is providing, in this case, in the form of videogames, will go a long way in lifting the children's spirits and aiding their recovery during this time of crisis.''

''The tragedy in Venezuela saddens the people at UGO deeply,'' stated J Moses, President and CEO of UGO Networks, Inc. ''We think that it is important to provide entertainment for children in times of disaster. We are also pleased to be able to give back during the holiday season, especially in light of the growth and wealth being generated by Internet companies.''

''Much of the disaster relief being sent to Venezuela is in the form of medical and food supplies, which is the most critical thing right now,'' said Moses. ''However, a little bit of fun and joy can often help people cope with a terrible situation.''

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A-ONE's Headline News
The Latest in Computer Technology News
Compiled by: Dana P. Jacobson

Counting Down to Y2K Bug Moment of Truth

Less than a few hours to go and counting.

It won't be long now before clocks strike midnight on December 31 and speculation about the millennium computer bug becomes reality.

It seems clear that airliners won't be falling out of the skies, not least because many will be parked empty on the tarmac as revelers shun travel and celebrate the new millennium at home.

Many computer experts who were frightening people a year ago with dire predictions of catastrophe and an end to civilization as we know it, have tempered their forecasts.

But doubts still linger. Many experts now say that any problems from crashing computers are unlikely to be spectacular.

Rather, they say some computers, unable to read the zeros in 2000, will stumble and produce annoying glitches in the first weeks and months of

2000 leading to inaccurate credit card bills or driving licenses which expire in 1900.

As dawn breaks over Asia on January 1, we will see the first solid evidence. But if there is a degree of trouble, this might not necessarily signal problems in the west.

"This hits part of the world that has done least first," said computer industry consultant Peter de Jager.

De Jager has spent six years traveling the world warning about the potential for disaster from the millennium bug, otherwise known as the Y2K problem. He was among the first to realize that a method of recording dates on software could cause chaos in computers when clocks strike midnight on Friday. Dates recorded in two digits, like 89 or 97, could trip over the two zeros in 2000 and cause computers to crash, or spew out corrupt data.

''I'm not worried by New Zealand or Australia, I'm a bit more worried by Japan, but I am more concerned about the rest of the Far East. The worst prepared come first. I wish that for one evening the earth would rotate the other way," de Jager said by telephone from Toronto, Canada.

As there are now few areas of life which do not have an intimate relationship with computers, the possibility of widespread failure set off all kinds of catastrophe speculation.

Companies and governments have spent huge sums in a race to fix the problem.

The U.S. information technology research firm Gartner Group has said companies around the world would have to spend between \$300 billion and \$600 billion to fix the problem. IDC, another U.S. high technology consultancy, estimated recently that by the end of 1999, the world will have spent \$250 billion finding, replacing, rewriting, testing and documenting computer code infected by the bug.

This week a Gartner Group report sought to shoot down predictions of catastrophe. Gartner also predicted that less than 10 percent of glitches would occur in the first two weeks of January, with 55 percent hitting over the rest of the year.

Gartner said the United States, Britain, Australia, Canada, Sweden and the Netherlands were best prepared. Russia, former Soviet states, India, Pakistan, Afghanistan and parts of central and western Africa were laggards.

Stephanie Moore, director of the Giga Information Group in Norwell, Massachusetts, agrees that the worst problems will occur in countries like Russia. But she is not convinced that everything will be perfect in the U.S. Italy's infrastructure is vulnerable too, she said.

'There is this myth still in place that the U.S. is better prepared than other countries. Fortune 500 companies, yes they've done the work, but smaller companies are far less prepared," Moore said.

She agrees that any problems are likely to be glitches rather than disasters.

''We've laughed at some of the problems that we've seen already; some

people in Maine getting car registrations for 1900 not 2000. But there could be lots of problems you won't be laughing at.

'The sky's the limit in packaged software, the desktop stuff we use all the time. There's so much code for home banking, financial packages, pay-your-bill packages. Anybody who thinks there will be no problems is fooling themselves," Moore said.

Peter Barnes, general manager of Survive! International, also goes for the boring, drip-drip over weeks and months scenario rather than a January 1 explosion.

''I think we are in for a few surprises in parts of western Europe. Italy is late, and Germany didn't accept that there is a problem, saying it had a modern infrastructure and therefore would be less prone to Y2K than other countries in Europe. I find that attitude worrying," Barnes said.

Survive! is an independent international user group for business that advises on preparing for problems from unforeseen disasters.

Whatever the outcome, some of the opinion formers are looking forward to finally seeing the extent of the problem, and then putting it behind them for good.

According to de Jager, any problems will become apparent in a couple of months and closure will be in sight.

'`After a week of business the paper being produced will start to show if things aren't 100 percent. Then at the end of the month (of January) the vast majority of problems would be over if it was a normal year. But because of the leap year in February, it will take to the end of March and the majority of this would have blown over," de Jager said.

''Mid-March is my parole date. I don't expect to be hearing from you (media) folks again. It will be time to take a nap," de Jager said.

# Samaritan Pays Hotmail Bill To Remedy Outage

Microsoft suffered an embarrassing outage of its Hotmail free email service over Christmas after it allowed a key domain name registration to lapse, but the service was back up and running yesterday after a good Samaritan stepped in to pay the delinquent \$35 bill on behalf of the company.

Michael Chaney, a Linux consultant from Nashville, Tenn., said he paid the bill by credit card through the online payment service of domain name registrar Network Solutions after he was denied access to his Hotmail account on Christmas Eve.

"I wasn't trying to embarrass Microsoft," he said in an interview with CNET News.com. "I figured it would make life a lot easier to a lot of Hotmail users."

Microsoft could not immediately be reached for comment. It was unclear how many Hotmail users were affected.

The outage, which was first reported on the Internet news service

Slashdot.org, was apparently caused when Microsoft's registration for the Passport.com domain name expired sometime Dec. 24. The Passport.com site verifies user identification and passwords for access to Hotmail and about 25 other services, according to Chaney.

Chaney says he paid the bill Dec. 25 at about 2 p.m. EST and was given invoice #11395965 documenting the transaction. An electronic copy of the receipt can be viewed at his Web site at "www.doublewide.net."

Hotmail service was likely restored by 5 a.m. the following day during a normally scheduled server update, he said.

Chaney said Microsoft has yet to contact him to thank him for his actions or to offer to reimburse the \$35 registration fee.

Microsoft E-Mail Service Crippled Over Missed Billing

Microsoft Corp., the software giant worth an estimated \$600 billion, said on Wednesday its free e-mail service had been partially crippled because it forgot to pay a \$35 bill.

Some users of Microsoft's Hotmail service were unable to access their accounts over the Christmas weekend, Kathy Gill, a Microsoft spokeswoman confirmed.

The glitch was caused after Redmond, Wash.-based Microsoft failed to pay a \$35 fee to registration company Network Solutions for rights to the Internet domain name passport.com, which verifies user names and passwords for Hotmail and other services, Gill said.

Hotmail has more than 52 million users around the world, but Microsoft said it was unclear how many had experienced problems.

In an ironic twist, the missed billing was discovered and paid by Michael Chaney, an Antioch, Tenn.-based programmer who works with the Linux operating system, an upstart competitor to Microsoft's Windows platform.

On his Web site at http://www.doublewide.net, Chaney said he paid the fee with his personal Mastercard on Christmas morning and had received a call on Tuesday from a Microsoft executive thanking him for fixing the problem.

Microsoft said it would refund Chaney the \$35, although Chaney hinted his bailout of the world's biggest software company was worth more.

''Microsoft is under no legal obligation to repay the \$35 to me, and it doesn't really matter to me if they do or not. If they do ... I would ask that when they make out a check they consider how much revenue would have otherwise been lost had this been down for another day or two, in addition to the inconvenience to people who rely on Hotmail as their only source of e-mail contact," Chaney wrote.

Early research shows the vast majority of Americans are satisfied with their online buying experiences this holiday season, but isolated horror stories still abound, with some consumers saying they won't shop on the Web again.

Especially problematic: Internet toy stores whose sites were periodically swamped, who failed to promptly answer customer queries and were unable to deliver what they promised in time for Santa.

''Overall, this was nothing short of a great holiday season for most Web merchants," said Tom Casey, a partner at the consulting firm PricewaterhouseCoopers. ''But there were some problems and not every shopper walked away happy."

E-retailers spent heavily this year to improve their Web sites, making them easier to navigate, adding inventory and speeding up delivery systems.

They also jammed the nation's newspapers and prime-time television shows with advertisements promising ease and convenience.

For the most part, their efforts paid off. Web watchers estimate online Christmas sales grew about four times from a year ago to as much as \$12 billion, well above forecasts at the start of the season that sales would merely double.

A new survey of 3,004 home-based Internet users by research firm PC Data Online and the securities firm Goldman, Sachs & Co. found that 97 percent of respondents said that their online experience met or exceeded their expectations.

''Doing my shopping with a couple of clicks was absolutely the way to go," said Amy Losak, of Teaneck, N.J., who bought some video games for her nephews from Amazon.com.

''Opening up my local paper and seeing the kind of nonsense shoppers had to endure this year at the mall, I knew that I would have been tearing my hair out."

But glitches still abounded, outraging shoppers forced to run out to stores at the last minute to replace their missing gifts.

Last week, Toysrus.com said that, due to overwhelming demand, it would not be able to deliver as much as 5 percent of its orders by Christmas. Others - including eToys and KBKids.com - also have had some trouble delivering on time.

Consumers also fault the toy sites for shoddy customer service such as unanswered e-mails and long waits on hold when they called.

On Monday, investment firm BancBoston Robertson Stephens Inc. downgraded eToys' stock. EToys shares slumped \$5, or 16 percent, to \$25.933/4 at 4 p.m. on the Nasdaq Stock Market.

''You build a boat and it is great for a nice, sunny day, but go out in a hurricane and see who can make it," said Lauren Cooks Levitan, the analyst who issued the eToys' downgrade. ''That's what happened a lot to the toy sites this Christmas."

Spokespeople for the companies didn't immediately return calls for

comment Monday.

Tara Hamre ordered a ''Toy Story 2" train set for her 4-year-old nephew from KBKids.com in mid-December.

After it failed to arrive she made repeated phone calls to the company, but got only promises. When it hadn't arrived by Dec. 23 Hamre headed to the mall and bought him some clothes.

On Monday, the company informed her the train would be shipped this week. It refunded the \$59.95 price and threw in a \$15 gift certificate, but Hamre isn't satisfied.

''He was so disappointed when he opened his gift and got clothes," said the Boston resident. ''That sticks with me. I will not shop with them again."

Shoppers also report trouble - from late deliveries to botched orders - at other sites, including Macys.com, Amazon.com, Send.com, Barnesandnoble.com and CDNow.

Ted Pugliese made his first-ever online purchase on Dec. 11 from HammacherSchlemmer.com, the Web site linked to the well-known catalog and stores.

When nothing arrived by the middle of last week, he called and found the company had lost his order. He vows never to shop online again.

''I'd rather go to a store and know that I have something in my possession," said the Bayville, N.Y. resident. ''But had it played out as it should, they would have had someone for life because I don't like going shopping."

## It's the Dubious Achievement Awards

As 1999 draws to a close, it is again time for the less-than-prestigious CompuBug Awards for Dubious Achievement in Computing.

The awards, like many of the products they honor, have no real value. The decision of the judge is final, and is based solely on personal opinion, instinct and finely honed prejudice.

CHICKEN LITTLE MEMORIAL JOURNALISM award is shared by the national media establishment for taking a bit of computing esoterica, the Y2K glitch, and building it into a menace that rivals the Black Death. The story has been so hyped worldwide that every technical failing of any sort will be attributed to the glitch, without regard to the fact that airplanes have crashed and power failures occurred before anyone heard about Y2K.

CANCER IN LANGUAGE award goes to the person (who someday will be identified and brought to justice) who first put the letter ''e" in front of nouns to signify the involvement of the Internet or electricity, giving rise to ''e-commerce," ''e-trades," ''e-books," ''e-greeting cards" - e-nough already!

I CAME, I SAW, I SUED award goes to the U.S. Department of Justice legal beagles who sniffed Microsoft and howled ''monopoly!" Yes, Microsoft

operating systems dominate, but this is not unlike taking the cliff to court because the lemmings keep leaping from it.

SOMEDAY, OVER THE RAINBOW award goes to suppliers of both cable modems and DSL (Digital Subscriber Line) technologies who were supposed to introduce simple, cost-effective, high-speed Internet connections into the ordinary consumer marketplace. Technical hint: Wheels roll better without corners in the form of required technician visits, problematic performance and high costs.

PRACTICE, PRACTICE, PRACTICE award goes to Microsoft Corp (NasdaqNM:MSFT - news)., which put out a Windows 98 upgrade in October '99, just months before the scheduled release of Windows 2000. If automobiles went out of control as often as Windows does, most of us would be afraid to leave our driveways.

NIGHT OF THE LIVING DEAD award, corporate division, goes to Apple Computer, which has climbed out of more coffins than all the vampires in Anne Rice's novels. The iMac sucks money, not blood, and flies from store shelves, not crypts.

TREE KILLER award, product marketing, goes to the nincompoops who sparked the trend in software packaging that requires several pages of cover flaps to tout the product and still manages to hide system requirements from anyone without a magnifying glass. It shouldn't require more than one sheet to describe what the product does and what is needed to run it. And why surround a CD-ROM with a package the size of a cereal box?

Runners-up are the publicists who send multiple-page faxes announcing that the Third Assistant Vice President in Charge of Foot Kissing has been promoted to a higher region of the anatomy.

GROUP CANONIZATION award goes to the public relations professionals who cheerfully endure grumpy questions, dumb questions and monosyllabic phone treatment in their quest to make me seem more informed than God intended. My thanks.

#### Race Toward 1GHz To Headline 2000

PC buyers looking for muscle machines next year won't be disappointed. But neither will those seeking low-cost PCs or even computing appliances.

The year 2000 should see higher-performance, lower-priced offerings in each of the three markets.

As has been the case in other years, personal computer performance will increase markedly over the next six to 12 months thanks to faster processors from Intel and Advanced Micro Devices Inc., and the widespread adoption of higher bandwidth memory technologies.

But Year 2000 will be different in at least one way: PC makers are poised to exchange the familiar beige PC box for smaller, sleeker, much less complicated PC designs. Their aim is to decrease costs and to make those PCs easier to set up and use for first-time buyers.

Specific-purpose computing appliance devices, expected to compliment PCs in the home, will also become more popular next year.

But as appliances come into their own, high-end PCs will be nearing their next important milestone in performance, the 1,000MHz mark.

"This time next year, we'll be shipping Willamette (the code name for a forthcoming high-end desktop PC processor), so we'll be well over 1GHz," said Pat Gelsinger, vice president and general manager of Intel's Desktop Products Group in an interview at November's Comdex/Fall.

AMD, however, might reach that milestone first. The company, which launched a 750MHz version of its Athlon PC processor in November, will continue to push the Athlon toward the 1GHz mark. An 800MHz version of the chip is due in early January. By the end of the second quarter the company expects to introduce a new version of Athlon with integrated Level 2 cache and an enhanced processor core. This core, code-named Thunderbird, is expected to carry AMD to the 1GHz mark.

Intel will ramp its 800MHz Pentium III into volume shipments in the first quarter of next year. The chip could possibly hit 1GHz in the late third or early fourth quarter. The Willamette chip will be introduced at about the same time.

Processors aren't the only area in which PC users should expect to see improvements. New memory technologies, which improve performance by feeding more data faster into today's high-performance processors, should begin to come into their own during 2000.

Intel's next major chip set, called the 815 and code-named Solano, will add support for 133MHz Synchronous Dynamic RAM. At the present time, Intel supports only 100MHz SDRAM or Rambus memory technology. The 815 is due in the first quarter of next year, sources said.

The chip set, which will also offer an integrated graphic engine, will be aimed at midrange PCs. Because 133MHz SDRAM memory costs much less than Rambus memory, PCs using the 815 set will also cost less than high-end 820 chip set-based PCs with Rambus memory.

Otherwise known as Direct Rambus Dynamic RAM, Rambus memory technology uses a completely different architecture than SDRAM to offer bandwidth of up to 1.6GB per second -- double that which is now offered by 133MHz SDRAM. Rambus-based systems, however, are currently \$300 to \$400 more than a similar system with SDRAM, due to the additional cost of the newer memory technology.

Analysts expect the low-end PC market to continue to grow in 2000.

While Intel Corp. was slow to embrace this market with its Celeron processor, losing a significant amount of market share to rival AMD, the company has rebounded with a slew of chips and aggressive pricing. But no one is counting AMD out; retail sales of Athlon-based systems are reportedly strong. AMD plans to ship one million Athlons by the end of this year.

Intel should begin shipping a new version of its Celeron chip, based on its 0.18 micron manufacturing technology, in the first half of the year. This chip will offer higher performance, starting at about 550MHz, and will support a faster system bus -- 1,000MHz. Intel, which is at 500MHz now on Celeron, may offer one more version of the current chip, a 533MHz with a 66MHz bus, first, sources said.

AMD is also regrouping its own low-end offerings. The company plans to debut improved versions of its K6-2 and K6-III processors in the first quarter of the new year. Called K6-2+ and K6-III+, the chips will be on AMD's 0.18 micron manufacturing process, which should improve yields of the chips and allow AMD to increase their clock speeds. The K6-2+ chip will also receive 128KB of integrated Level 2 cache, which should help boost its performance.

Low-cost versions of the Athlon chip, which utilize a lower-cost socket, called Socket A are also in the offing. These chips are not likely to show up, however, until late in 2000. AMD will maintain K6-2+ and K6-III+ at least through the third quarter, according to sources familiar with the company's plans.

While it battles with AMD in the low-end market, Intel is targeting an emerging market for sub-\$600 PCs with a brand new chip. Code-named Timna, the processor will debut in the second half of next year. Timna promises to be a very low-cost chip for low-cost PCs and appliance devices. Intel says the chip should help lower the overall platform costs for PC makers, allowing them to build very low-cost PCs, but still maintain a profit margin.

Timna will balance on the line between low-cost PCs and appliances. Intel expects the chip to be used in both kinds of devices.

Intel isn't the only company targeting computing appliances in 2000. A host of competitors in the Internet appliance market are expected to begin shipping in the first quarter of the year.

Where PCs are general-purpose machines capable of a wide range of jobs, appliances will focus on a specific task such as accessing the Web. The appliance devices' advantage as compared to PCs, however, will be in cost and ease of use.

Computing appliances such as Netpliance Inc.'s i-opener will proliferate. The i-opener is a \$199 Internet machine that allows users to dial in to an Internet service provider for access to the Web, e-mail, e-commerce and a host of content services such as entertainment news and weather. i-opener is aimed at users who may not be able to afford a PC, said CEO Kent Savage.

Even Microsoft Corp., which has created its own Internet appliance called MSN Web Companion, is diving into the appliance business.

Don't count out the prospects of the PC, however.

Special-purpose boxes will gain sales volume, but will likely not take anything away from PC sales, said Roger Kay, director of the Desktop PC Practice for market researcher International Data Corp., of Framingham, Mass.

Instead, the PC will become something of a central hub, which connects other devices to each other and to the Web.

"The PC is still the only really viable hub for DSL or cable," Kay said. "The big move in 2000 in the consumer market is going to be to bring broadband (Internet service) into the home."

As a whole, PC makers are facing a slowdown in growth rates over the next two to three years. Where unit growth has been close to 20 percent over

the past few years, rates are expected to slow to the low teens and later single digits as the PC market continues to mature, Kay added.

Wireless technology will also grow in importance in 2000. Many PC companies, following the lead of Apple Computer Inc., will add wireless local area networking technologies to both their corporate and consumer products. Wireless will be used to connect PCs to each other and to other devices. At the same time, appliance devices will utilize the connection to share data with the PC or to utilize the PCs broadband Internet connection.

## CES Preview: Hail The Web Appliance

The trade show that helped launch a million gadgets -- everything from VCRs to CD-ROMs and high-definition TV -- may help create a new star next week: The Internet appliance.

Led by Microsoft Corp.'s MSN Web Companion, the inexpensive machines for connecting to the Net will gather a lot of attention when the Consumer Electronics Show opens its doors.

The device, based on Microsoft's Windows CE operating system, is designed to allow users to connect to the MSN service or the Web and to send and retrieve e-mail -- but it won't do much else. But it will offer user those basics for little, if any cost.

Microsoft is working with a number of companies, which will build Web Companion devices. They include Acer Group and Philips Electronic Inc., company officials said. Others may include Compaq Computer Corp., which showed a prototype Web Companion device during Comdex/Fall '99.

Web Companion devices should begin shipping in mid-2000.

Also on the Internet appliance front, Intel Corp. will announce new television set-top box designs.

CES this year will continue its tradition of being a backdrop for the introduction of new consumer technologies and gadgets of all shapes and sizes.

One example: the Kryptic Pilot. The device, manufactured by Applied Biometrics Products Inc. of Burlington, Vermont, is a fingerprint-recognition security device for Palm organizers. Measuring 3.25 by 3 by 0.9 inches, the device stores fingerprints in non-volatile memory, which means they will not be erased by removing the device's batteries. Kryptic Pilot should cost less than \$100, with volume pricing as low as \$69 the company said.

Cygnion Corp. plans to display a cordless, multi-user phone system for small businesses. Called CyberGenie PC, the device is made to operate with a PC. It was developed by a former Ericsson Inc. subsidiary and will be available in January. Pricing has not been announced.

I-Jam Multimedia will offer a line of MP3 players with up to 64MB of memory for storing voice, data and MP3 or Windows Media files. Pricing for the players starts at \$179.

But CES is not just about gadgets. Mainstream computer and chip companies

will be trying to make an impression as well.

Advanced Micro Devices Inc. is expected to announce its 800MHz Athlon processor, with support from at least two major PC makers. AMD will also demonstrate 900MHz versions of the chip, running at room temperature. Two demos will show off a version of the current chip at 900MHz and a version of the chip utilizing copper interconnects, running at 900MHz.

Compaq Computer Corp. and IBM will likely have consumer PCs with the new chip at the show as well, sources said.

Other hot CES topics are expected to be broadband, digital radio, HDTV, home networking and information appliances, according to show organizers.

Intel will host a number of product demonstrations, including a demo of a digital camera for children and in-car computers. For the latter, the company will show off of two auto computers, including one from Clarion and another from Ford Motor Co.'s Visteon division. They are both based on Microsoft's AutoPC, running on Intel processors. Clarion offers its AutoPC for \$1,299.

Also on tap from Intel: Demonstrations of home networking and digital subscriber line (DSL) technologies.

When it comes to Windows CE handhelds, Microsoft -- behind closed doors -- may show the next-generation Palm-sized PC devices.

But the real meat of the announcement may not come until February's CeBIT trade show in Germany. There, Microsoft will demo a wireless Palm-sized PC being developed by Casio Computer Co. Ltd and Siemens Communication Devices, a division of Siemens Information and Communication Products. This machine will combine wireless Internet connectivity with mobile phone features running the later version of the Palm-size PC software, code-named Rapier.

The device will offer the traditional capabilities associated with a Palm-sized PC, including digital music capabilities and a color screen, along with wireless e-mail and Internet access, instant messaging and phone features. The device, which will support GSM and CDMA networks, will be available only in Europe at first.

Palm Computing, the 3Com Corp. division that will soon be spun off, is not expected to have a large presence at the show. The division, however, is expected to debut its first color handheld device, a Palm organizer called Palm IIIc, early next year. The company, according to reports, is also working on a Palm OS-based terminal device for consumers.

Motorola Inc.'s Paging Division will offer a new lower-cost series of paging devices, including a PDA-like model that offers paging, e-mail and Internet connectivity.

Apple May Unveil New Notebooks At Macworld

As far as some Mac enthusiasts are concerned, the real millennium celebration is still two weeks away.

Macworld, which runs from Jan. 5 through 8 in San Francisco, is

traditionally Apple's showcase for showing off new products. Last year, for instance, it used the show to debut the colorful iMacs. Although it is uncertain what exactly will be announced or discussed officially at the show, source have said that dual processor servers as well as a PowerBook for business users are in the works. Apple is also working on new iMacs, sources have said.

In any event, the show coincides with Wall Street's bullishness on the company, which many wrote off for dead a couple years ago. Apple's stock hit new all-time highs during the year, at one point reaching 118 before moving back to today's 98.34, more than double where it started this year.

While some analysts are predicting only a moderate gain--most of a possible run up could coincide with the rise of the Nasdaq exchange--others such as Salomon Smith Barney's Richard Gardner think Apple is poised to announce a stock split and a continued rise. So far this year, anticipation of a split has helped propel the stock prices of many other companies.

Products, however, will likely be the focus of the show, a subject that Apple has declined to comment on.

"We don't comment on rumors or speculation," said an Apple representative.

Apple is working on a revised notebook design that it hopes will be lighter and faster than the current models, said sources. The recently introduced G4 chip won't be built into the new notebooks just yet--Motorola has said the chips currently consume too much power to be used in mobile applications.

"I'd be amazed if you don't see a new PowerBook," said Lou Mazzuchelli, financial analyst with Gerard Klauer Mattison. "[The PowerBook is] getting a little long in the tooth. It's due for some periodonture," he added.

Some dealers might also be amazed. Apple told some dealers that no new PowerBooks or iMacs would be announced in January, according to sources close to the company. Mazzuchelli noted that Steve Jobs, Apple's interim CEO, might still decide to show the new notebook and tell people it will ship later, as he has done with various other models such as the iBook consumer portable.

Apple had dual processor servers ready to go for the Seybold trade show in August but held back because of a shortage of the then new G4 processors.

Adding servers to the lineup is an essential component to a successful strategy for reaching the growing small business market which some calculate to be a \$50 billion-a-year segment. The company has been slowly adding the pieces of a small business offering but is lacking some of the applications desired by certain vertical market segments, said Mazzuchelli.

Apple has a small business services Web site that offers information on special leasing programs and hardware and software bundles. Mazzuchelli said he thinks that a more formal announcement of such a strategy would come later once iMacs with the 17-inch screens that are reported to be in development become available.

But hardware is not the main surprise Apple could deliver. Analysts are still hoping to see Apple elaborate on an Internet strategy because services are an area where a hardware maker can more easily boost profit margins.

Apple has already delivered one part of the Net strategy—the iMac. The company claims that some 90 percent of iMac owners connect to the Internet. However, the ongoing revenue from service fees and any slices of e-commerce revenues are being lost to the service providers and partner companies. Apple needs to expand on this component of its product strategy to give analysts a better idea of the company's growth prospects.

One possibility is that Apple will set up its own portal site and use it in conjunction with related technologies to make online shopping and Web surfing easier. Last year, the company registered the domain names MyApple.com and MyApple.net, which could potentially serve as the name for Apple's portal.

Apple could also use other sites to boost traffic--and revenues--through the portal. One such site is its QuickTime "Showcase" site, a competitor of RealNetworks' Web site that features multimedia content such as movie trailers, news reports from around the globe, and music videos.

On the other hand, analysts have been hoping to hear about an Internet strategy since before July. Mazzuchelli thinks the strategy is taking time to evolve because it will be more complete than just reselling Internet access under Apple's own name. He doesn't expect AOL, which negotiated an extensive arrangement with Gateway in October, to be doing a deal with Apple, however.

"I just think its because there are different visions about who owns the customer relationship down the road," he said. The Gateway-AOL deal features extensive arrangements of profit sharing and even joint product design, he noted, and Apple may have already been further down the road in some areas, and thus may not be as willing to share profits.

## Preparing Your PC For Y2K

With the year 2000 just days away, PC users should walk (not run) to check their systems for Y2K compliance.

Determining Y2K compliance is a necessary evil in making sure your PC is capable of handling the date change between Dec. 31, 1999 and Jan. 1, 2000 without problems.

There are a number of reasons why testing your PC is essential, but they come down to the fact that many elements of a PC -- including its BIOS, operating system and applications -- need accurate date information. If that information delivered to the PC is incorrect, it could result in application instability or data loss.

Every computer has inside it a real-time clock. The clock, however, measures only the last two digits of the year; it views 1999 as 99. The BIOS software interprets the first two digits of the year. It would, for example, add the 19 to the real-time clock's 99 to derive a 1999 date.

Problem is, not all BIOSes are programmed to know that the date change between 99 and 00 means 2000 and not 1900.

There's good news, however. Most BIOS software sold in the past few years

is programmed to interpret the date change correctly. For PC users it basically comes down to double checking the reliability of the date information delivered by the BIOS.

Users can start by checking with the manufacturer of their PC to determine its level of year 2000 readiness. Most hardware makers offer Y2K links to help customers determine a PC's state of readiness directly from the factory. Links to manufacturers can be found here.

But BIOS software isn't the only part of your PC that needs to be checked. Four elements of the PC should still be examined for readines. Besides the BIOS software, they are the PC's operating system, software applications and personal data files.

Though they have been updated over time to address most year 2000 issues, Microsoft Corp.'s Windows 95, Windows 98 and Windows NT require year 2000 updates.

Some applications will require additional Y2K updates. PC users need to consult the application developer to ensure that their applications -- and more importantly, the data produced by those applications -- are compliant.

Microsoft, for example, offers a year 2000 compliance testing tool, called Product Analyzer. The tool runs a compliance check on Microsoft software installed on the system and then makes recommendations on updates.

Microsoft has also developed a video to dispel year 2000 myths and help PC users update their systems.

When it comes to applications, companies have done some work to make sure they are year 2000 ready. The latest version of Office -- Office 2000 -- is compliant. Older versions of the suite, however, require updates.

PC owners will find a similar theme with many of their other applications, including the SmartSuite office suite from Lotus Development Corp. and Corel Corp.'s WordPerfect Office suite.

PC owners will also want to make sure that their accounting and home banking software is set for the new year.

Intuit, for one, offers a product guide on its Web site.

While you're at it, make sure to update your Web browsers and other ISP-related software by consulting with vendors.

With everything else out of the way, it's time to update your anti-virus software. There are a number of year 2000-inspired viruses that may affect your PC. These viruses are turned on with the date change. They can be eliminated, however, with the latest virus definitions and by running a thorough scan of your PC.

Anti-virus software makers Symantec Corp. and McAffee.com Corp. have each posted updates on their Web sites that help weed out these viruses.

Other important links:

ZDNet's Y2K Countdown Apple Computer Inc.'s year 2000 site The Linux year 2000 resources

## Y2K Bugs Double-Checked

Programmers double-checking for computer bugs just days before the new year are playing a high-priced form of the whack-a-mole arcade game, stomping out pesky errors in government and business computers previously certified as Y2K-ready.

'`Even when you think you're done, you're never done," said John Koskinen, President Clinton's top Y2K expert. He predicted these overlooked computer bugs '`will create nuisance issues but in some cases they could be important."

The late scramble to scrutinize again software blueprints believed to have been already repaired has given rise to a cottage industry worth hundreds of millions of dollars that so far has scoured billions of lines of arcane computer code for missed errors.

The federal government urged all its agencies to get independent verification ''to provide a double-check that their own test results are sound," according to instructions from the Office of Management and Budget.

''We always find problems," said Doug Black of Data Integrity Inc., one such vendor in Waltham, Mass. The company convinces its customers by asking to scan the cleanest software they've already certified for 2000, then pointing out problems they missed.

''The truth is, most organizations find they have more bugs than they thought," Black said. Customers include the Air Force, Barnes and Noble Inc. and United Healthcare; all found Y2K bugs that had been missed during earlier reviews, Black said.

Another vendor, CCD Online Systems Inc., did work at the Social Security Administration and the Department of Health and Human Services. Its president, Jim McGovern, has complained about ''an unacceptable number of errors" in software already fixed for Y2K.

Social Security found 1,845 errors earlier this year in 42 million lines of computer code that it missed during previous repairs, said Dean Mesterharm, the agency's deputy commissioner of systems.

''The vast majority of them were very minor," Mesterharm said. ''There were probably about four that would have had some kind of effect, a day or so of disruption."

In a publicity stunt that extended until Thursday, McGovern's company challenged some of the nation's biggest organizations to let it scan their repaired software free. If it found fewer than 50 errors for every million lines of computer code, it offered to donate \$50,000 to local schools for computer education. No one accepted.

Despite its success discovering these overlooked mistakes, the industry has managed to attract interest mostly from the world's largest companies and governments - ironically those that generally did the best work

during earlier software reviews.

''Companies that came to the process relatively late, maybe did some minimal amount of testing, are just crossing their fingers," said Harris Miller, president of the Information Technology Association of America.

Many organizations don't want to acknowledge there may be Y2K problems lurking in programs already repaired by vendors, which universally refused to sign contracts that might leave them liable for missed errors.

''People who need it most are the ones who did the poorest job," said Andy Kyte, a research director in London for the Gartner Group, an analyst firm. ''All the customers wanted guarantees, and no vendors would provide one."

But companies that have gone back over already-fixed software ''concluded there are a lot more errors in the code, a lot more problems than they had imagined," agreed Rich Evans of the Meta Group Inc, another analyst firm. ''There really is a false sense of security."

What problems are these companies missing?

Experts said early efforts focused on checking dates - typically identified with a heading 'mm-dd-yy" or 'date" - buried within computer code. But prankster programmers sometimes used unusual nomenclature that can make these date variables nearly impossible to find.

Data Integrity said it found a date field called 'Shirley" when it reviewed software at a major bank in the Northeast, which it declined to identify. The programmer responsible, it turned out, was dating a woman named Shirley when he wrote the software.

Air Force experts compete in a ''variable of the week" contest to find the most obscure title for a date field.

"The name of a girlfriend or footballers or ice hockey players or the names of movie stars is unfortunately all too common as programmers express their creative free will," said Kyte, the Gartner analyst.

### Great Pause Will Mark The New Year

As fireworks explode, revelers exult and the crystal ball descends in Times Square, the Boston mass transit system will mark the arrival of the new millennium by ... grinding to a halt.

It won't be alone.

At the plants of U.S. Steel Group, the year 2000 will arrive without any steel-making. At Boston's Copley Square Hotel, the elevators will sit silently on the ground floor. The Louisiana casinos floating on the mighty Mississippi River will dock.

Fears of Y2K problems accompanying the arrival of the millennium have persuaded a variety of people from coast to coast to greet the new year not with a bang - not with a boom - but with a pause.

Some pauses will last a few minutes; other will cover a couple of days.

All are linked to concerns that potential Y2K glitches are beyond the control of companies that have spent years and millions of dollars trying to work out the kinks.

Across the country, 50 Amtrak trains will stop around the same time, with officials of the commuter line saying delays could last up to an hour. Planned celebrations on the trains will include a special millennial party favor: a commemorative train whistle inscribed, ''I rode Amtrak into the new millennium."

''We believe we are Y2K compliant," said Amtrak spokesman John Wolf in a statement typical of most worries. ''This is just a precaution."

There will be no keepsakes on the Union Pacific Railroad, but the freight line also will halt its trains.

In Boston, the Massachusetts Bay Transportation Authority will have trains stop inside stations as the clock approaches midnight. If there are no glitches, trains will start up a few minutes after the new year arrives.

The 'better safe than sorry" policy extends to an assortment of mass transit systems: San Francisco, Philadelphia and Chicago will follow the same pattern as Boston. Delays were expected to run around 15 minutes. In Washington, officials were taking an extra precaution for their pause: leaving the doors open on all subway cars.

Managers of some New York City apartment buildings will move elevators to the ground floor at 11:50 p.m. Friday and keep them on the ground for 20 to 30 minutes - with their doors open - to avoid having any tenant stuck should there be a Y2K electrical outage.

At the Copley Square, hotel guests will not only have complimentary shampoo and shower caps on hand but flashlights, placed in all 143 rooms.

At another Boston locale, the swanky Ritz-Carlton Hotel, an elevator company president and two technicians will check in for the night to prevent any pauses there. Each will spend the night - Y2K willing - inside a \$400 room rather than a stalled elevator.

Some pauses are longer than others. At the Massachusetts Institute of Technology, the call went out this week to turn off its 20,000 computers by Dec. 30 to avoid any Y2K woes. The computers should stay off until Jan. 2, school officials said.

On the Mississippi, things are going to be a little quieter than expected. Louisiana's 10 riverboat gambling operations all will dock for two hours beginning at 11 p.m.

The problem isn't the riverboats; it's a combination of fears that other craft on the river might not be Y2K compliant and 'an abundance of caution," explained state police Lt. Dane Morgan.

Several round-the-clock business operations are planning to pause as well.

While U.S. Steel Group can't shut down its blast furnaces in Pittsburgh without causing damage, the USX Corp. division will not produce any steel for several hours.

''Everything's better if you're not pouring hot metal," said spokesman John Armstrong. The company, while confident with its own Y2K

preparations, doesn't want to risk problems if power cuts out.

A number of major chemical producers will follow suit, trying to avoid any accidents or ruined batches of chemicals.

There will be no pause on the streets of New Orleans, where the city's venerable street cars - primitive and manually controlled - are scheduled to run right into New Year's Day.

Sometimes it pays to be old.

### Group Issues Y2K Hard Drive Warning

Companies rebooting computers because of the Y2K technology glitch had better think again.

Many computer manufacturers recommend restarting systems after the date rollover to ensure all Y2K fixes, such as BIOS and driver updates, are in place.

But that action could cripple hard drives, rendering systems useless and compromising valuable data, according to the Systems Administration Networking and Security (SANS) Institute. The danger is greatest for systems many companies depend on the most: those that run 24 hours a day, seven days a week, and are rarely shut down.

"It would be terribly sad if our defensive actions were the ones that actually caused the damage we were trying to avoid," said Alan Paller, director of research for SANS.

The problem is grunge buildup around a hard drive's slider assembly, which houses the read/write head. Grunge is made up mostly of lubricant and media particles. If the grunge buildup is heavy, the slider—a ceramic air bearing that moves over the disk—can stick to the Landing Zone, the area where it rests when the disk is not spinning. If the slider gets stuck, the hard drive could fail, damaging or destroying data.

Paller warned grunge buildup is no small problem. He recounted the story of a big-three PC manufacturer losing 28 out of 50 systems during maintenance rebooting several years ago. Out of desperation, the company dropped damaged drives on the ground, which loosened stuck sliders and restored 10 units for use.

SANS recommends spinning down hard drives or shutting down systems for a short period, no more than 30 seconds, which helps remove some grunge from the slider but lessens the likelihood of the mechanism sticking to the Landing Zone. Companies should next run non-destructive storage diagnostic software to test the drive, and then proceed with the planned Y2K power down and restart.

"It isn't that much grunge, and it's a way to get rid of what seems to be the main amount that will get you stuck," Paller said. "It sounds silly to do a temporary stop, but that's a good solution. No one would have thought of that. It's not intuitive. You would have to know physically how that disk works to think of it."

To prevent future problems, companies should spin down hard drives about

once a month to minimize the buildup of grunge. Newer drives will build up grunge more slowly, according to SANS.

With the date rollover just days away, some companies may have to scramble to make last-minute preparations to protect their data and have backup systems in place.

At a time when manufacturers can lose \$100,000 for every hour of down time, or e-commerce operations can lose thousands of customers a day to competitors, this kind of failure to critical systems is unthinkable, Paller said.

And, he warned, it goes without saying that companies should always back up their data, particularly before resetting systems on Jan. 1.

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